## DISCUSSION

The finding that Smart Start Health Interventions are associated with parents' reports that their children have a regular source of health care is consistent across the three analysis strategies (matched pairs, full data set and early versus late counties). When controlling for FRPL and when analyzed separately for African American children, the statistical associations are stronger than for all children combined. This suggests that Smart Start Health Interventions have a greater impact among populations with greater need. Along with Smart Start Health Interventions, greater need may explain part of the difference between the early and late counties, given that many late SS counties tended to be more rural and poor than early round counties.

In the case of immunizations, only DTP among the individual immunizations was consistently more up-to-date among Smart Start children in the three analyses and when controlling for FRPL. Perhaps more interesting is the observation that, although not quite significant, Smart Start children tended to have had their last vaccinations on time, even when FRPL was controlled for. This is a very high threshold to achieve. That there was no difference in last vaccination on time between early and late counties may suggest that the effect of Smart Start on immunization status may be attained in a shorter period of time than the effect of SS on access to a regular source of care. Late counties can be just as successful at improving immunization status because there is only one window of opportunity for completing a child's immunization on time, and that window is the same regardless of whether a county has been participating in Smart Start for one year or four years.

## Limitations

This evaluation is closer in spirit to a meta-analysis than to evaluation research in that it includes as many different health interventions as there are Partnerships in the sample, and it relies on data collected by another agency for a different purpose. The post-hoc design, while the most feasible, is not as strong as a prospective study with matched controls might have been. The design of this study does not lend itself to causal inference. Finally, perhaps the major limitation of this study is the quality of the KHA data in the first place. Many of the data elements were missing or incomplete. Nevertheless, the results are informative. There are many statistically significant associations between Smart Start Health Interventions and two major outcomes, regular place of care and better immunization status, but it is not possible to determine which intervention or interventions among the many implemented by the 11 counties may have contributed to the association.

## **CONCLUSIONS**

This study has found significant health care access and immunization differences between children exposed to a Smart Start Health Intervention and matched control children who were not so exposed. Specifically, the Smart Start group was more likely to report use of a regular source of health care, and they had better immunization status. With respect to the DTP series of immunizations specifically, the odds of a child who had been exposed to a SS Health Intervention being up-to-date were large and statistically significant. Given the source of the data and the cross-sectional nature of the analysis, it is not possible to conclude that Smart Start is the cause of the improvements. Nevertheless, some observations lend support to this hypothesis, especially the fact that poorer children and African American children, both of whom would have been expected to have lower immunization levels and less access to regular health care, in fact benefited from Smart Start more. This is unlikely to have happened by chance.